

### **CLASSROOM INNOVATION IN MATHEMATICS GRANT 2010-11**

#### **OVERVIEW**

**Purpose:** From 2005 to 2009, state scores in mathematics were stagnant, rising only one percentage point over the four-year span. At the state level, IDOE is currently exploring new, innovative classroom strategies that will help to push mathematics in Indiana forward. One such strategy is the integration of digital curriculum and technology into traditional teaching methodologies.

The purpose of the program is to provide a select number of LEAs with the opportunity to use digital mathematics curricula, technology-based instruction, and interactive white boards in lieu of traditional textbooks. This grant provides an opportunity for LEAs to pilot digital curriculum which can be readily aligned to changes in standards and to determine its effectiveness with their student populations and within their contexts. Following the grant, LEAs will either continue the use of digital curriculum through their textbook rental program or discontinue use of the digital curriculum and seek an alternative for curricular materials. Digital curriculum would need to utilize innovative strategies for instruction and represent a significant break from the traditional textbook-oriented instruction and be approved by the IDOE, but it would not serve as a standalone, online course that replaces the classroom teacher. In order to evaluate the effectiveness of these strategies, awards will be limited to schools that propose plans for either: 6<sup>th</sup> Grade, 7<sup>th</sup> Grade, 8<sup>th</sup> Grade, and/or Algebra I. The results of this pilot program will be used to evaluate the effectiveness of digital curriculum and provide data for schools that may look at adopting digital mathematics curricula in the future.

This grant program is funded through the David C. Ford Fund.

**Application:** Please fill out each part completely. For assistance, you may contact Zach Foughty at <u>zfoughty@doe.in.gov</u> or Phone: (317) 233-5019

	NFORMATION			
1. Corp #	2. Corp Name			
8205	Salem Community Schools			
3. Corp Address (Street, City, State, Zip		4. Telephone	2	
500 North Harrison Street		812 883 4437	7	
Salem, IN 47167			-	
5. Contact Person's Name	6. Contact Person's Email Address			
Jackie Arnold		jarnold@salemschools.com		
7. Contact Person's Address (Street, Cit	8. Contact Person's Telephone 812 883 4437			
500 North Harrison Street Salem, IN 47167	8	12 883 4437		
Salem, m 47107				
9. Superintendent's Name	10. Superintendent's Email Address			
D. Lynn Reed		lreed@salemschools.com		
11. # of Schools Participating	12. # of Students Being Serv	red 1	3. # of Teachers Par	ticipating
2 643		1	3	





# II. Project Abstract Briefly describe the proposed project clearly and concisely using the space provided.

Both secondary schools in our district wish to participate in the Classroom Innovation in Mathematics Grant with a focus on middle school mathematics and Algebra I. Salem High School's Algebra I classes and Salem Middle School's Grades 6-8 math and Grade 8 Algebra I classes include a total of nine classrooms. One of those classrooms has a SMART Board, and our proposal will request eight more. Each building has two special education classrooms, one LD and one ED. Two of these classrooms already have a Mimeo interactive device and we will relocate two underused elementary Mimeo's to the other two special education classrooms. All together out project involves 13 rooms.

Our math teachers district wide have already worked to identify student needs and brainstorm strategies to improve math achievement by better aligning curriculum, emphasizing problem-solving and better understanding of concepts, and using more engaging methods and real-world applications.

The use of interactive white boards and access to state-of-the-art presentation tools through Agile Mind match our district goals as well as the Classroom Innovation in Math (CIM) goals of this grant.

A summary of our proposal includes:

- Purchase of 8 SmartBoards from Creative Image Technologies
- Agile Mind digital content at \$30 per student for 643students and Acuity Algebra I at \$8.75 per student for a total of 188 students, and Acuity Algebra I set-up fees of \$4500
- Computers and infrastructure including additional bandwidth online testing in K-12
- Professional Development for program director, school administrators, technology coordinators, and participating teachers in use of SmartBoards, Agile Mind, and Acuity Algebra. Summer reimbursement of \$300 for 13 teachers.



Please complete <u>one</u> grant narrative for your LEA which includes all schools. Narratives should be double spaced, I2pt Times New Roman font, and not to exceed I0 pages.

### **III. GRANT NARRATIVE**

<u>Software Choice and Rationale</u>: Identify the digital content program you have selected. Describe how this program aligns with the purpose of the grant. Describe how this program will address the instructional needs of your students and teachers.

Our teachers are excited about the opportunity to use Agile Mind in their mathematics classrooms. After participating in several webinars and doing addition research, Agile Mind was the obvious choice to meet the academic needs of our students, to complement our existing resources and strategies, and to reenergize instruction and increase student engagement levels. It was apparent to teachers that the goal of Agile Mind was to enhance teacher instruction, not to script or reduce instruction to digital independent study. Both the goals of the CIM grant and our district goals match well with the following elements of Agile Mind included in its proposal for Salem Community Schools:

- Innovative classroom strategies to push mathematics achievement forward
- Integration of digital content and technology with traditional teaching methodologies
- Use of innovative strategies for instruction to make a significant break from traditional textbook-oriented instruction
- A robust assessment system with immediate easy-to-read reports on student progress to allow teachers to adjust and differentiate instruction
- Comprehensive personal and online support for teachers with varying levels of technology skills

A group of teacher-leaders in mathematics spent the past school year preparing for textbook adoption using the DANA Center's tool for selecting curricular materials. Because of their high regard for this tool, teachers are looking forward to utilizing another product based on the DANA Center's innovative practices and strong research base. Our research as shown that the DANA Center's work and products involve both research and application, and the center is widely recognized as a preeminent institute for mathematics study and publications. The center has close ties to NCTM, Achieve and the ADP Network,



Urban Math Leadership Network, and national STEM initiatives. Their association with efforts to create national common core standards ensure that Agile Mind content will be vertically aligned and easily adjusted to match any emerging mathematics curriculum or revised/extended standards.

Most of the efforts to improve math performance at Salem Community Schools so far have had a strong focus on curriculum and content. The presentation tools and other features of Agile Mind will help us to balance the equally important aspects of innovative and engaging classroom presentation and effective formative assessment. Interactive and engaging animations, puzzles, and explorations are standards-based but will appeal to students of all ages and abilities. In addition to relevance to student lives, Agile Mind's high-tech and high-touch strategies along with multiple interactive representations will enable our students to better visualize and analyze mathematics concepts. Weekly online assessments will provide helpful feedback allowing teachers to respond and modify instruction to meet student needs.

In the past two years, our schools have begun initiatives to move away from a complete reliance on text-book driven instruction and to create more engaging work for students. Agile Mind will allow us to take a giant leap forward with its teacher presentation tools, model lesson plans, vocabulary support, and content reinforcement. Examples of existing initiatives and programs which complement Agile Mind and the goals of the grant are described below.

- As a member of Dr. Phillip Schlechty's Standard Bearer School District network, SCS is focused on improving student achievement by identifying key content and increasing student engagement using 10 Design Qualities. We realized immediately that the sample lesson provided in the Agile Mind webex was a perfect fit with the Design Qualities to gain student engagement and connect course content with real world applications of mathematics.
- A K-12 team of math teachers has begun examining existing math curriculum as a component of our textbook adoption process, as preparation for possible national Common Core
   Standards and as an introduction to our district-wide plans to implement curriculum mapping



based on the work of Heidi Hayes Jacobs.

- Similar to digital content options ALEKS and Carnegie Learning, NovaNET digital curriculum was initially purchased to provide online coursework for alternative school students and for credit recovery. In the meantime, math teachers have found creative uses for NovaNET lessons. Geometry students who did not perform well on the Chapter 1 classroom exam, completed the corresponding NovaNET unit and improved performance. Struggling middle school students use NovaNET in study halls and our top math students begin their year with NovaNET online units to individually review and strengthen the math skills necessary to be successful in AP Calculus.
- Using federal stimulus dollars, we purchased a Academy of Math software for Title I and special education students. Incorporating an adaptive intervention engine and positive motivation principles, the Academy of Math builds foundational math skills for beginners through to algebra-ready students in 10 skill areas that align to NCTM standards. To our surprise and delight many of our lowest performing special education students made grade level gains in just a few weeks.

As a result of these strategies and others, the percentage of SCS students passing ISTEP falls at or near the state average. But our data also reveals several areas of concern based on disappointing math performance of special education, free/reduced lunch and high ability students.

• The percentage of SCS students scoring high enough to qualify for a Pass+ falls well below the state average. SCS's high ability students score significantly below state and national averages on SAT and ACT exams, and only 1% of our high school students take AP exams as opposed to 12% statewide. While 31% of Indiana graduates earned Academic Honor Diplomas, only 20% of 2009 SCS graduates met the requirements for an Academic Honor Diploma.

SAT Mathematics Score Comparison SCS, IN, US													
CONTROL WITH BOX	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
SCS	486	503	461	462	479	472	477	485	490	486	491	495	473
IN	497	500	498	501	501	503	504	506	508	509	507	508	507
US	511	512	511	514	514	516	519	518	520	518	515	515	515

The switch from the ISTEP GQE to new End-of-Course Assessments is another concern because Salem students have performed very poorly on these tests. For example, in 2009, the percentage of SCS students passing the Algebra ECA was only 8%, down from 21.4% in 2008. Indiana's average is 41%. Performance will need to increase nearly 70% to meet AYP targets.

SCS Perfo	ormance on Indian	a End-of-Cour	se Assessmen	t in Algebra I	
	2005	2006	2007	2008	2009
IN Percent Passing	242%	23.7%	29%	Na	41%
SCS Percent Passing	8.9%	14.7%	16.8%	33.1%	30%
SMS Percent Passing	20.6%	28.6%	36.2%	57%	68%
SHS Percent Passing	7.9%	3.8%	5.1%	21%	8%

• The students who struggle most are free/reduced lunch and special education students—and the percentage of these students grows larger each year. As a district, the number of Free/reduced students has more than doubled from 23.5 percent in 2001 to 51.4 percent in 2010. Our Special education population is also growing, as is the gap between their performance and that of general education students.

Spring 2009 Special Ed and Free Lunch Percent Mastery of Academic Standards							
	Number Sense	Computation	Algebra/ Functions	Geometry	Measurement	Data Analysis	Problem Solving
Gen Ed	80.5%	79.8%	80.2%	79.3%	79%	67%	68.2%
Sp Ed	43.3%	43.3%	45.3%	45%	47.2%	27%	37%
Sp Ed Gap	37.2%	36.5%	34.9%	34.3%	31.8%	40%	31.2%
Pd Lunch	71.0%	82.0%	83.0%	81.2%	83.0%	69.0%	82.3%
Fr Lunch	48%	66.2%	67.3%	67.0%	71.2%	54.3%	65.8%
Fr Lunch Gap	16.4%	15.8%	15.7%	14.2%	11.8%	14.7%	13.8%

Implementing the innovative classroom strategies, technology and digital content through the CIM

Grant will be a key addition to our existing efforts to improve mathematics concepts and skills for all of our students, with a special emphasis on the three targeted groups. This grant will also address the needs of our math department faculty by providing more opportunities for them to work together collaboratively. Some

of those involved in the grant are young teachers who are open to innovative methods and comfortable with technology, but not so familiar with content, instruction and assessment. At the other end of the spectrum, we have teachers with a wealth of knowledge and experience with math curriculum, but may be uneasy using the SMARTBoards and Agile Mind software in place of textbooks. Our professional development plans have been designed to take advantage of different types of training through our vendors to meet each teacher's needs. But the most important feature will be CIM Team meetings scheduled at least monthly to encourage teachers to assist each other and share successful tactics.

<u>Professional Development</u>: Describe the PD needs of your teacher for using interactive whiteboards and implementing digital curriculum and detail the specific plan for meeting those needs.

Salem Community Schools will offer professional development for the program director, school administrators, technology coordinators, and participating teachers to effectively implement the use of interactive whiteboards, Agile Mind and Acuity Algebra I. We are planning professional development to meet teacher learning preferences by including face-to-face workshops; webinars; online tutorials and videos; in-person advisors for groups or individuals; immediate support through phone, chat and e-mail; and modeling by experts. The cornerstone of our professional development plan, however, will be CIM Team meetings the first Wednesday of each month to support and learn from each other.

Each of these delivery methods will address initial gaps that exist between the current technical skills of our teachers and the skills needed for successful implementation, as well as the gap between traditional, text-book driven instructional methods/curriculum and the methods/curriculum related to digital content. Teachers will be reimbursed for three summer days of professional development through the grant funds. In both Salem High School and Salem Middle school, the technology issues will be easier to solve than the letting go of old-style math instruction. Though they are starting at different comfort levels with technology, each participating teacher is capable of mastering the SMARTBoards, Agile Mind software and Acuity Algebra 1. Likewise, after participating in the DANA Center process this year, math teachers

concluded that changes need to be made by placing more emphasis on problem solving and on understanding concepts rather than simply learning by rote. Most teachers have begun to move away from text-book driven instruction, but it will take extensive support and training for some of them to put all their trust into digital content.

Technology. Consultants from Creative Image Technologies, the vendor for our purchase of SMART Boards for the project, will first work directly with the project director to customize a professional development plan for the school year. In July, Creative Image Technologies will help install the SMARTBoards and conduct at least one day of on-site professional development on use of the new interactive whiteboards. The summer training will also include practice on accessing online support such as the use of two-minute training tutorials, thousands of searchable lesson activities and the Lesson Activity Toolkit. SMART Education Solutions, the maker of SMARTBoards, also offers 40 free SMART online training sessions each week covering 20 topics and SMART publications with informative articles about trends in education and tips for using technology to engage students.

Use of the technology will be a key element of the monthly CIM Team meetings which may at times include SMARTBoard users in other disciplines to learn from each other by sharing techniques, asking questions and working through technical issues with the SMARTBoards. Beyond local collaboration on technology, other professional development opportunities include various SMART communities on the web, the online SMART Exchange for sharing tips and success stories, and SMART channels on TeacherTube and YouTube.

Agile Mind. The Agile Mind implementation program for educators offers embedded instructional planning and support tools as well as face-to-face professional development including tools, protocols, and strategies to help develop capacity and support teachers. The professional development program includes three Agile Mind Advisor Sessions for each building to ensure teachers understand the services essential to

student success. Agile Mind professional development services are aimed at strengthening content knowledge, helping busy practitioners to implement the online resources, focusing on best instructional practices to align standards, assessment and resources, and enabling teachers of varying technical skills to be successful in using real-time reporting to inform instruction

The first step of the professional development plan will be two-day institutes in July 2010 to introduce teachers to strategies to help them in the effective use of the Agile Mind resources for enhancing student outcomes. Important concepts covered in the two-day sessions will include the function and use of the Agile Mind online resources to incorporate alignment to state standards in their lesson planning, to select a models for implementation, to plan common lessons as the focus of implementation, and to agree on processes for analyzing student work. Modeling of high yield strategies and instruction planning by experts, will help teachers to use Agile Mind resources to effectively manage course instruction, assessment, and benchmarking of progress.

In addition to the initial two-day professional development sessions for teachers, In-person Advisor sessions will be tailored to the needs of participating teachers at each school. Based on analyses of school data and conversations with the program director, school administrators and math department chairs, Agile Mind Advisors will create a plan for half-day visits which could range from a short planning session to indepth meetings to help teachers implement strategies they learned during initial seminars. Advisors may also meet one-on-one with teachers in need or work with course-specific content. Advisors will also be available by phone and email for ongoing just-in-time support.

Later in the school year, Agile Mind Advisors will assist administrators in planning for the following year to provide a continuum of services and ensure a successful on-going and increasingly strategic implementation of the Agile Mind for student success.

Acuity Algebra I. After completing their first year using Acuity assessments, Salem Middle School

teachers should need only minimal professional development to use Acuity Algebra I. With the assistance of their peers at the middle school, Algebra I teachers at Salem High School will be able to get by with a one-day training session or online tutorial.

# <u>Implementation Plan - Digital Content</u>: Describe your plan for monitoring the implementation of the digital content with fidelity to program guidelines.

The grant program director will be responsible for clarifying the grant's expectations and protocols to be followed with all administrators and participants. Based on these expectations and protocols, school administrators, the program director and Agile Mind Advisors will monitor the fidelity of implementation of the technologies associated this project by using online Agile Mind status reports and classroom observations.

The project protocol calls for teachers to use Agile Mind at least one hour per week per class. Agile Mind professional development for the program director and school administrators will include instruction on what to look for and a checklist of observable traits to demonstrate productive, stage-appropriate implementation. The school administrator, program director or Agile Mind Advisor will observe each participating math teacher a minimum of twice per month to monitor implementation and provide coaching. These observations will be formalized into a monthly review that will suggest additional professional development needs to be addressed. In addition to these observations, online status reports will outline the current implementation levels and help analyze the needs of students and teachers. The observations will also monitor the percentage of content taught through digital means for all classrooms in the grant, with expectations of at least 80% based on digital content. The program director, school administrators and Advisors will encourage renewed commitment and participation from any teacher using Agile Mind less than one hour per week. Agile Mind Advisors will be available to provide supportive strategies to help any teachers become more comfortable with innovative teaching resources. Discussions of implementation issues related to the project protocols will also be included in the regularly scheduled

team meetings throughout the school year.

Especially with the addition of new computers in each building through the CIM project, students in middle school math and Algebra I classes will have access to a computer class at least one period each week. These weekly lab schedules in each building will be documented each week as evidence of fidelity. School administrators and the program director will use Agile Mind's monthly report of usage to monitor online usage data. If levels fall below the protocol amount, we will investigate and consult our Agile Mind Advisor to help shape appropriate student usage.

<u>Implementation Plan - Interactive Whiteboards</u>: Outline your current inventory of interactive whiteboards, how you can realign current inventory to meet program goals of one interactive whiteboard per classroom mathematics teacher, and what funds you would apply for in order to address these gaps.

The first-ever interactive whiteboards in our district were installed in July 2009 in 16 classrooms K-12, including one sixth grade math classroom. Our project includes the purchase of an additional eight Smart Boards for five more middle school classrooms and three high school classrooms in which Algebra I or Grade 6, 7, and 8 math courses are taught. Four special education classrooms will also participate in the project. Two of them already have Mimeo interactive devices and projectors purchased this year through IDEA ARRA stimulus funds. Two additional Mimeos are being under-used at the elementary school and will be reassigned to the other two secondary special education classrooms. Local funds will be used to purchase projectors for these two Mimeos.

Funds from our Captial Projects Fund will be used to cover SMARTBoard costs beyond \$3500 for Short Throw projectors that work best with the construction of our classroom walls and ceilings. Our High Ability Grant and 21<sup>st</sup> Century Community Learning Center Grant will be used to cover the costs for of Interwrite MOBI teacher and student tablets for each building. These devices work with interactive white boards or even just a computer and projector to allow both students and teachers to write, draw, insert images, highlight, interact with and annotate images projected on any surface.

Implementation Plan - Online Assessments: Describe each school's capacity and commitment to administer online ISTEP+ and ECA assessments, as well as Acuity Assessments, both with and without additional lab space that grant funds could provide. Describe how teachers will ensure that students are trained on how to properly complete online assessments.

Salem High School has successfully administered Core 40 End-of-Course Assessments online for several years. Elementary and middle schools began using Acuity assessments in Fall 2009. Our first-ever online administration of ISTEP+ will begin on April 26. Over the summer, new computers were added to some labs to prepare for the new Acuity testing. But, the process of adding online ISTEP+ mid-year has brought to light other capacity issues including a limited number of labs and issues with bandwidth.

Based on our experiences with online ECA/Acuity testing and informational material from CTB, we planned to schedule 100 elementary and middle school students taking ISTEP+/Acuity and an additional 25 students taking End-of-Course Assessments testing simultaneously. However during the first ISTEP+ practice tests on April 15 capacity issues arose and CTB technical support estimated that only 75 students could test at the same time without problems. Because our school year has been extended several days due to make-up snow days, we're hoping to adjust our testing schedules and cross our fingers this spring, but we will need additional bandwidth for next year.

With the addition of Acuity Algebra I and Agile Mind, the high school will need a new computer lab in the current math prep room to allow Algebra I students to access digital content and assessments weekly and for ECA testing next spring. A lab already exists in the middle school for tutoring that could be used by math and Algebra I students, but the workstations are hand-me-downs from old labs and pose issues with reliability and capacity to run the programs for the CIM project or for state testing programs including ISTEP+, Algebra I ECA, Acuity, and Acuity Algebra I.

Our proposed budget includes funds at each building for computers/monitors and for upgrading bandwidth on our district server.



	IV. BUDGET			
(Use a separa	Expenditures Budget (Use a separate line for each expenditure, and add rows as needed)	ws as needed)		
Expenditure Description	Person Responsible	Cost per Unit	Number of Units	<u>1800</u>
Digital curriculum subscriptions (list vendor)	Jackie Arnold	\$30	643	\$19,290
Professional development reimbursements	Jackie Arnold	\$300	13	\$3900
Interactive whiteboard 77 " SMART Technologies SB680	Jackie Arnold	\$3688	∞	\$29504- \$1504=\$28000 (*see below)
Acuity Algebra set-up fee	Jackie Arnold	\$4500	1	\$4500
Cost for Acuity Algebra administration (per student)	Jackie Arnold	\$8.75	188	\$1645
Costs related to online assessment Middle School Computer for Testing Hyundai X93W 19" Monitor/Lenovo Think Centre A62 9935	Jackie Arnold	\$710	20	\$14200
Costs related to online assessment High School Computer for Testing Hyundai X93W 19" Monitor/Lenovo Think Centre A62 9935	Jackie Arnold	\$710	20	\$14200
Costs related to online assessment Fiber Egress 45 mbps Bandwidth	Jackie Arnold	\$9979	1	\$9979
		,	Total Funds Requested	\$95714
	LOCAL SHARE*			
*This is not a requirement for the grant, but it will help us to determine the additional resources need at the local level.	al resources need at the local level.			
(Use a separa	Expenditures Budget (Use a separate line for each expenditure, and add rows as needed)	ws as needed)		
Expenditure Description	Person Responsible	Cost per Unit	Number of Units	COST
Additional SMART Board cost for short throw projectors	Jackie Arnold	\$188	8	*\$1504
Existing SMARTBoard 6 <sup>th</sup> grade math	Jackie Arnold	\$3701	1	\$3771
Existing Mimeo interactive devices	Jackie Arnold	006\$	4	\$3600
Additional Costs for Interactive Whiteboard Interactive MOBI Tablets	Jackie Arnold	\$1,149	4	\$4596
Additional Costs for Projector for Mimeo	Jackie Arnold	\$470	2	\$940
			Total Funds Requested	\$14411



### **V. ASSURANCES**

## By checking each box below, you agree to the following assurances: The LEA assures that Acuity online assessments will be administered to assess student growth during the grant period (e.g. Acuity Predictive or Pre/Post Test; the exact assessments will be determined by the DOE, but will not exceed 3 tests during the school year, excluding ISTEP+ and ECA). The LEA assures that, given favorable results on a statewide level, it will give serious consideration to sustained use of digital curricula in all schools in the LEA until the next textbook adoption cycle (2016-17 school year). The LEA assures that the selected digital curriculum will be implemented, with fidelity, as the core curriculum for all mathematics classrooms (6<sup>th</sup> Grade, 7<sup>th</sup> Grade, 8<sup>th</sup> Grade, and/or Algebra I) at each school that receives grant funds, for the duration of the school year. "With fidelity" implies that districts will take the steps necessary to implement the digital curriculum as outlined by the vendor. The LEA assures that teachers will be provided with professional development necessary to implement digital curriculum with fidelity. Professional development includes, but is not limited to, training on digital curriculum software, integrating interactive whiteboards into a standards-based classroom, and using Acuity assessments to guide instruction. The LEA assures that funds used for interactive whiteboards will remain in mathematics teacher classrooms for the duration of the program. Any realignment of current inventory for these purposes will also remain in effect for the duration. The LEA assures that all 7<sup>th</sup> and 8<sup>th</sup> grade students in Algebra I will take the Algebra ECA online. The LEA assures that all students will take the ISTEP+ online, unless the school can demonstrate an inability to test all students online. The LEA assures that all teachers that use digital curriculum will participate in an anonymous evaluation of the program to determine its ability to impact teaching methods. The LEA assures that classrooms in which digital curriculum is being used will be available for observation by certain members of the Department of Education, with reasonable notification, to provide for a qualitative analysis of program effectiveness. ☐ The LEA assures that all students will complete a survey regarding the effectiveness of the digital curriculum. The LEA assures that all hardware and software implementations will be put in place before the start of the 2010-11 school year and that professional development related to this program will begin before the start of the 2010-11 school year. The LEA agrees to keep such records and to provide such information to the State educational agency, as may be reasonably required for fiscal audit and program evaluation (consistent with the responsibilities of the State educational agency under this part).

## VI. SIGNATURES

List the management team of this grant for each school. Each member of the management team should also sign below. Complete this sheet for *each* school that is included in the district's implementation plan.

School Name:	Grade Levels:	
<u>NAME</u>	POSITION	Signature
1. Dr. D. Lynn Reed	Superintendent	I Bon Reel
2. NENE	District Math Coordinator	NA Og
3. Dr. Jackie Arnold	District Assessment Coordinator	garne dunne
4. Ray Oppel	Principal	Na Oppel
5. Gary Myszak	Math Department Chair	200



## VI. SIGNATURES

List the management team of this grant for each school. Each member of the management team should also sign below. Complete this sheet for each school that is included in the district's implementation plan.

School Name:	Grade Levels:

NAME	POSITION	Signature
1. Dr. D. Lynn Reed	Superintendent	D. Town Reed
2. NONE	District Math-Coordinator	MA
3. Dr. Jackie Arnold	District Assessment Coordinator	Welley aunold
4. Derek Smith	Principal	Coultun
5. Paul Bosley	Math Department Chair	Soul Booky